

REMARKS

Claims 1-28, 33-60, and 97-116 are pending in the application. Claims 29-32 and 61-96 were previously canceled. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected Claims 1-28, 33-60, and 97-116 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent Application Publication No. 2002/0099649 ("Lee") in view of U.S. Patent Application Publication No. 2002/0161711 ("Sartor") and U.S. Patent No. 6,714,918 ("Hillmer").

As noted on page 4 of the present Office action, the Examiner indicates that "Lee et al. '649 disclose the method substantially as claimed ... with the exception of explicitly requiring the IHS accessing an actual outcome of the first financial transaction request to determine a result indicating whether the first indication was correct based on the actual income[sic] and automatically modifying the weight of at least one of the plurality of rules based on the result. However, Lee et al. '649 does disclose a transaction detection rate that represents the number of correctly identified fraudulent orders and a transaction false-positive rate that represents the number of orders incorrectly identified as fraudulent orders. Lee et al. '649 further disclose using these rates to determine the score thresholds Sartor et al. '711 disclose that the values of the variables can be set according to the actual history of fraud Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee et al. '649, in view of the teachings of Sartor et al. '711, to access an actual outcome of the first financial transaction after determining a result indication whether the first indication was correct for the basic reason of reducing the false-positive rate."

The Examiner next indicates on page 7 of the present Office action that "Lee et al. '649 discloses the method substantially as claimed, as advanced above, with the exception of requiring (a) activate a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight and determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula using the sum ... ; (b) transmitting the first indication to the provider to accept or deny the first financial transaction"

The Examiner continues on page 8 of the present Office action that "[r]egarding (a) and (b), Hillmer et al. '918 disclose activating a subset of the rules based on the information in the first financial transaction request, each of the plurality of rules having a predetermined weight

and determining a first score by calculating a sum of the weights of the activated rules and applying a mathematical formula using the sum ..., and transmitting the first indication to the provider to accept or deny the first financial transaction Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method/system of Lee et al. '649, in view of the teachings of Hillmer et al. '918, to include a first score by calculating a sum of the weights and applying a mathematical formula using the sum, transmitting the indication to the provider for the basic reason of combining known elements to yield predictable results."

As an initial matter, Applicant respectfully asserts that the Examiner has not properly presented a *prima facie* case of obviousness in view of Lee, Sartor, and Hillmer. According to M.P.E.P. § 2142:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

According to M.P.E.P. § 2143,

Exemplary rationales that may support a conclusion of obviousness include:

(A) Combining prior art elements according to known methods to yield predictable results;

...

To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination yielded nothing more than predictable results to one of ordinary skill in the art. *KSR*, 550 U.S. at ___, 82 USPQ2d at 1395; *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

With respect to the proposed combination of Lee and Hillmer, the Examiner has failed to present a *prima facie* case of obviousness as required by 35 U.S.C. § 103 and further discussed in M.P.E.P. § 2143. The Examiner has made a conclusory statement (i.e., that it would have been obvious ... for the basic reason of combining known elements to yield predictable results) and has not provided the necessary rationale to support a conclusion of obviousness.

In addition, the findings required of the Examiner to support her conclusion of obviousness pursuant to M.P.E.P. § 2143 cannot be established. For example, due to the uniqueness of each financial transaction system (discussed below), the results of combining the Lee, Sartor, and Hillmer systems would not appear to be predictable to one of ordinary skill in the art. Moreover, there is no indication that the specific elements taken from each financial transaction system of Lee, Sartor, and Hillmer as specified by the Examiner would perform the same function when combined as it did separate from the combination. For example, to get specific elements to function in Sartor likely require that unique processing be performed, but when the specific elements of Sartor are combined with Lee's system and the elements taken from Hillmer, the combination may require that the elements of Sartor be modified to get it to work with Lee and Hillmer. Similarly, the combination may require that the elements of Hillmer be modified to get it to work with Lee and Sartor.

In addition, M.P.E.P. § 2143.01 indicates that

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the

art, considering the degree to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).

Applicant respectfully submits that the Examiner has failed to consider the combined teachings of the Lee, Sartor, and Hillmer references and whether any of these three references may prevent or teach away from being combined. For example, the Examiner has considered the combination of Lee and Sartor separately from the combination of Lee and Hillmer. The Examiner has failed to consider the combination of Sartor and Hillmer and the combination of all three of the references together.

Applicant respectfully points out that the references teach away from being combined. For example, the Lee, Sartor, and Hillmer references cannot be combined because the scoring methodologies used in each of the three systems is dramatically different. For example, in Lee's financial transaction system the merchant forwards a scoring request to the eFalcon system 100, which utilizes specific profiles of each consumer's historical spending behavior to determine whether a particular transaction presented by the consumer is aberrational. In Lee's system, the information corresponding to the profiled keys is extracted and the matching profile for each key is retrieved from a profile database. Para. 117-124. Then, the current transaction information, the profiles, and contrast measures are input into the scoring model for scoring. Para. 126. The scoring model is a statistical model, e.g., a neural network or regression model, but may also include rules for further transaction processing. Para. 133. After the score is generated, the score along with zero or more reason codes are returned to the merchant's rule engine 112. Paras. 205, 216. The score is then processed through rule bases 403 containing rules that recommend the final outcome. Para. 216. Once processed by the rule engine 112, the result is that the order is either rejected, accepted, outsorted, or more information is requested from the consumer. Para. 224. The rules do not affect the score provided by the scoring system 114. Para. 225. Rather, they fine-tune the prediction of the eventual outcome of the transaction. Para. 225.

In contrast, the system of Sartor first examines the content of the consumer order to determine whether this is the type of event for which the fraud detection analysis should be biased toward detecting more fraudulent activity, or should be biased toward reducing false positives. Para. 13. Based on the result of the event analysis, an appropriate rule set is selected and applied to the event to give the event some type of score 204. Para. 15. If multiple rules in the rule set apply to the event, the scores for all of the applicable rules are combined to form a fraud score for the event. Para. 16. Once the fraud score for an event is determined, the fraud score is compared to a threshold value to determine how the event should be treated. Para. 18.

In further contrast to the systems of Lee and Sartor, Hillmer describes that the vendor 106 receives a transaction 100 and initiates the fraud detection process. Col. 5, lines 40-46. Based on the form of payment identified in the transaction 100, the system 104 performs a payment authorization check. This check involves contacting either an external credit card issuing company or a third party check verification service. Col. 5, lines 47-58. For credit card transactions, the authorization check includes Address Verification checking ("AVS") and Card Verification Value Checking ("CVV2"). The AVS process ensures that elements of the address supplied by the customer match those on record with the issuing company. Col. 5, lines 59-67. CVV2 checking determines whether or not the customer is actually in possession of the physical credit card by asking for an identification code imprinted only on the card. Col. 6, lines 6-20. The transaction is also checked to see if the value of the commodities being purchased is greater than a pre-determined threshold amount. Col. 6, lines 21-36. If the value is greater than the pre-determined threshold, transaction parameters of the transaction are compared against a positive database, which includes customer identity information. If the current customer is found in the positive database, the transaction is bypassed from further processing, and the transaction accepted. Otherwise the fraud detection system continues its analysis. Col. 6, lines 37-65. Next, the transaction parameters are formatted and transmitted to a consumer information provider 224 who completes the fraud detection process. Col. 7, lines 7-10. The consumer information provider 224 first computes a fraud multiplier for the transaction. Col. 7, lines 42-43. The fraud multiplier is a score based on the value of the transaction parameters and whether the transaction parameters authenticate against databases 308, 310, 312. Col. 7, lines 43-47. For each transaction parameter, a corresponding point value is provided which represents the number of points to be computed into the fraud calculation. Col. 8, lines 44-67. The point values are determined at the discretion of each vendor depending on their individual business environments. Col. 9, lines 1-3. The fraud multiplier is computed by summing the points determined for each transaction parameter. Col. 10, lines 49-58.

Once the fraud multiplier has been computed, the fraud detection system next computes the SKU points for the transaction. Col. 10, lines 59-61. A SKU is a unique identifier code which identifies particular commodities involved in transactions. Col. 10, lines 61-63. Each commodity has a unique SKU. Col. 10, lines 63-64. Each SKU is associated with a point value indicating that particular commodity's propensity to be the subject of fraud. Col. 10, lines 64-66. The SKU points for each commodity are summed. Col. 11, lines 2-5. A total fraud score is computed by multiplying the SKU points by the fraud multiplier. Col. 11, lines 55-58. The total fraud score is compared with a fraud score threshold, which indicates the degree of potentially

fraudulent behavior that indicates that the transaction is likely fraudulent. Col 11, line 66 - col. 12, line 2. The consumer information provider returns an indication to the vendor whether the transaction is likely fraudulent. Col. 12, lines 14-24.

As evidenced by the summaries of the Lee, Sartor, and Hillmer systems discussed above, a person of ordinary skill in the art would understand that each system is unique and that it would take a considerable amount of time to incorporate one or more aspects of one of the systems into another one of the systems and get the combined system to operate properly. By having to incorporate one or more aspects of a third system into the already combined system would seem to be even more difficult.

For example, Lee applies a statistical model to current transaction information, the profiles, and contrast measures to generate a score. This score is transmitted to the merchant who applies rules to determine whether to accept, deny, outsort, or request additional information. Sartor first determines what items are being purchased and then applies an appropriate set of rules and combines the scores for all of the applicable rules to form a fraud score for the event. The fraud score is then compared to a threshold value to determine how the event should be treated. Hillmer determines a fraud multiplier and SKU points. The fraud multiplier is based on the value of the transaction parameters while the SKU points is based on the type of commodity being purchased. The fraud multiplier and the SKU points are multiplied to get the total fraud score.

Accordingly, the uniqueness and different methodologies of how each system performs its fraud detection indicates that the references cannot be combined and that they provide conflicting teachings.

For at least the reasons discussed above, Claims 1-28, 33-60, and 97-116 are not obvious and are therefore allowable.

CONCLUSION

In view of the foregoing, allowance of the pending claims is respectfully requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,

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